



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,620	01/16/2004	Charles A. Eldering	T708-14	1665
81712	7590	06/21/2011		
Carlinco, Spicer & Kee, LLC 2003 S. Easton Road, Suite 208 Doylestown, PA 18901			EXAMINER	
			CHIN, RICKY	
			ART UNIT	PAPER NUMBER
			2423	
			MAIL DATE	DELIVERY MODE
			06/21/2011	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/759,620

**Applicant(s)**

ELDERING ET AL.

**Examiner**

RICKY CHIN

**Art Unit**

2423

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5-8,10-18,22,23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-8,10-18,22,23 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed March 24, 2011 have been considered but are not persuasive.

Applicant argues that prior art of record does not teach or suggest "wherein the minimum bandwidth requirements identify a required amount of bandwidth available within the program stream for the advertisement to be inserted". Applicant argues this by stating that in Dedrick, the minimum bandwidth requirements do not determine whether the advertisement will be inserted and instead selects the content first and then "determines which electronic information needs to be delivered at what quality and at what cost" and therefore Dedrick will deliver the advertisement regardless of the minimum bandwidth requirements. The examiner respectfully disagrees. It is noted that Dedrick will deliver the advertisement regardless of the minimum bandwidth requirements. However, in response to applicant's arguments against the reference individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The rejection relies upon the combination of Carles, Bryant, Hane, and Safadi which teaches of advertisers being able to set parameters for the advertisement such as bidding prices, time and targeted customers, and being able to enter any necessary parameters, determining technical capabilities to fulfill the request, booking a bandwidth and setting levels of access to available bandwidth; selecting a

targeted advertisement from the plurality of requests for insertion into the advertisement opportunity based at least in part on the maximum bid, bandwidth requirements. Dedrick is being relied upon for to mere teaching of using a well-known parameter for defining a desired advertisement characteristic/parameter of minimum bandwidth requirements. Dedrick teaches of wherein the plurality of requests associated with an advertisement includes minimum bandwidth requirements wherein the minimum bandwidth requirements (See col.13 lines 13-47; col.17 lines 15-40; and col.18 lines 48-63 which discloses the advertiser being able to transmit information to the server detailing the advertisement desired to be inserted, the details/parameters including the targeted users, title and min/max bandwidth requirements as well as the amount the advertiser is willing to pay for the transport mechanism used. Hence, it is clear that Dedrick allows the advertisers to request a minimum amount of bandwidth for insertion of the advertisement and would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the teachings of Carles, Safadi, Bryant, and Hane and their teachings of matching desired ad characteristics to avails to determine the advertisement to be inserted and to have incorporated the inputted minimum bandwidths requirements of advertisements as taught by Dedrick as to better characterize the advertisements and to meet the quality and cost goals of the advertisers. Hence, it is clear that the combination teaches of "wherein the minimum bandwidth requirements identify a required amount of bandwidth available within the program stream for the advertisement to be inserted".

Applicant further argues that the prior art of record does not teach or suggest "compressing, based at least in the avail bandwidth, the selected targeted advertisement such that the minimum bandwidth requirements are satisfied". Applicant argues that Safadi merely selects pre-stored advertisements matching the rate of the insertion opportunity, but does not compress the selected advertisement such that minimum bandwidth requirements are satisfied. The examiner respectfully disagrees. Safadi (col.5 lines 13-34) teaches that the commercial does not have to be stored pre-compressed and may be compressed such that the contents fits the bandwidth allocated for the program to which the commercial belongs, thereby reading on the claims since the claims do not recite that the compressing is based on satisfying the minimum requirements. Rather the claim recites that the compressing is based on the avail bandwidth of which the result is that the minimum bandwidth requirements are met. In other words, there is nothing in the claim that takes the minimum bandwidth requirements and compresses the advertisement based on the minimum bandwidth requirement. Hence, anytime selected advertisement is compressed to fit the avail of the bandwidth and also matches the minimum bandwidth requirements, the claim limitation would be met as the result of the compression would satisfy the minimum bandwidth requirement. Moreover, on a further note, the examiner would like to also point out that compressing the selected advertisement based on or resulting in the minimum bandwidth requirement being satisfied could not be found anywhere in the applicants specification. The examiner would further point out that even if the claims recited that the advertisements were compressed based on the minimum bandwidth

requirements and if such limitations were present in applications specification, Hamilton, US 2009/0067510 ([0023], [0057]-[0058]) teaches of wherein an ad is recompressed to fit minimum and maximum bandwidths.

The applicant further argues that the combination of Carles, Bryant, Safadi, Hanes, and Dedrick is inoperable. Applicant argues this by stating Carles teaches inserting advertisements based on a previously stored schedule and any modification of Carles with Bryant and Hane would defeat the purpose of an advertisement schedule and change the principle of operation of the Carles system. The examiner respectfully disagrees. The aspects of Bryant and Hane relied upon are mere teachings used to enhance determining, matching, and correlating advertisements and avails such that target the desired audience while meeting the advertisers requirements. For instance, Bryant is merely relied upon for the teaching of determining an avail bandwidth and minimum bandwidth requirements, wherein the minimum bandwidth requirements represent required amount of bandwidth available within the program stream for the advertisement to be inserted, wherein the targeted advertisements are also selected by comparing the avail bandwidth to the minimum bandwidth requirements. Hanes is relied upon for the teachings of providing requests of avails with desired parameters and matching the advertisements to the avails based on correlations and prices. Combining the teachings of Hanes and Bryant would only help to better characterize the advertisements and avails and better help correlate the advertisements to be inserted and presented to the desired audience of which would be a desirable functionality to any targeted advertisement system. The modifications would in no way effect the

operation and system of Carles other than to help better characterize avails and advertisements. Furthermore, such features would be not be mutually exclusive to a system of Carles since determining bandwidths and comparing and correlating requests of advertisers to the avails would be adaptable in a real-time system where advertisements are selected on the fly or in a system where advertisements are pre-stored and a schedule is created in advance as the systems would nonetheless be enhanced with better characterizations. Therefore, the combination of the prior art of record is rendered operable and for the reasons stated above, the rejections of maintained.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5-8, 10-18, 22-23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carles, US 5,661,516 in view of Bryant, US 5,652,615, in further view of Hane 2006/0041921, in further view of Safadi, US 6,487,721, and in further view of Dedrick, US 5,754,787.

Regarding claim 1, Carles discloses of a method for managing selection and insertion of advertisements (See Abstract), the method comprising: determining

subscriber characteristics (See col. 3 lines 1-15- col. 4 lines 1-10 which discloses identifying and providing information about categories of recipients and groups of households defining its region) for an advertisement opportunity within a program stream (See col. 3 lines 40-65 which discloses breaks in program material for commercial insertion for each household); receiving at least one request for advertisement presentation (See col. 3 lines 30-62 which discloses the insertions for each subscriber during each break are determined by the CMMS 11 and are communicated to server 10 for insertion into schedule 31. Therefore, a request is being made by the CMMS and being received by the server), the at least one request including advertisement characteristics, comprising intended target market characteristics (See col.3 lines 44-55 which discloses that based upon information contained in the commercial muting database and information embedded in the commercial message CMMS will select certain households to receive certain commercial messages and will convey that information to server 10 for storage in commercial message schedule 31, thus comprising of an intended target market of households); and selecting targeted advertisements for insertion into the advertisement opportunity, wherein the targeted advertisements are selected by correlating the intended target market characteristics to the subscriber characteristics (See col.3 lines 16-60 and col. 4 lines 66-col. 5 lines 1-45 which discloses the CMMS communicating to the server for insertion into the schedule and determining the commercials to be sent to a subscriber based on profile household data in profile database 36. Furthermore, correlation of the intended market characteristics to the subscriber characteristics is



further exemplified by the categories of goods and services which are part of the embedded information and using syndicated research whereby a representative sample of a high frequency user or customer for the given product is selected whereby targeted households are characterized for the product or service and ratings are given for each category of goods/services with a higher rating being a more likelihood of a purchase)

Carles does not explicitly teach of determining an avail bandwidth and minimum bandwidth requirements, wherein the minimum bandwidth requirements represent required amount of bandwidth available within the program stream for the advertisement to be inserted, wherein the targeted advertisements are also selected by comparing the avail bandwidth to the minimum bandwidth requirements.

However, in the same field of endeavor, Bryant teaches of determining an avail bandwidth and minimum bandwidth requirements (See col. 4 lines 37-45 and Fig. 3 which discloses the relative indication of bandwidth requirements and col. 5 lines 4-9 which discloses determining the allocated bandwidth available for the base and fill segments), wherein the minimum bandwidth requirements represent required amount of bandwidth available within the program stream for the advertisement to be inserted and wherein the targeted advertisements are also selected by comparing the avail bandwidth to the minimum bandwidth requirements (See col. 5 lines 4-9 which discloses that for a 6Mb/s signal , up to 3.0 Mb/s or four 1.5 Mb/s fill segments can be concurrently broadcast. Hence, in order to be able to allocate the bandwidth necessary to fill the fill segments, the bandwidths of the fill segments must be first determined to see if they would fit the required bandwidth of the signal in combination with the other fill

segments if concurrently broadcast. Therefore, fill segments which are too big and use up too much bandwidth cannot fit with other fill segments concurrently cannot be used making selection based on comparing avail bandwidth to minimum bandwidth requirements necessary).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the teachings of Carles to incorporate determining an avail bandwidth and minimum bandwidth requirements, wherein the minimum bandwidth requirements represent required amount of bandwidth available within the program stream for the advertisement to be inserted, wherein the targeted advertisements are also selected by comparing the avail bandwidth to the minimum bandwidth requirements as taught by Bryant to allow a quality and successful insertion of a targeted advertisement to occur by preventing overflow and making efficient use of the available bandwidth. The combination of Bryant and Carles further teaches of containing the results of the correlation (See Carles, col. 5 lines 20-47 and col. 8 lines 57-67 which discloses that advertisers may purchase advertising time based on the calculated correlation of the subscribers).

The combination of Carles and Bryant does not explicitly teach of receiving, from a plurality of advertisers, a plurality of requests for advertisement presentation, each request including a maximum bid; selecting a targeted advertisement from the plurality of requests for insertion into the advertisement opportunity based at least in part on the maximum bid, the minimum bandwidth requirements and a correlation between the

intended market characteristics and the subscriber characteristics, wherein a price for inserting the targeted advertisement is calculated based on the correlation.

However, in the same field of endeavor, Hane teaches of receiving, from a plurality of advertisers, a plurality of requests for advertisement presentation (See [0050] which discloses a plurality of users specifying delivery requests), each request including a maximum bid (See [0025];[0069] which discloses bidding on the avail, whereby each bid is construed as at least a temporary maximum bid and [0045];[0052];[0054];[0078] and [0081] which discloses a buyer as being able to enter any necessary parameters, determining technical capabilities to fulfill the request, booking a bandwidth and setting levels of access to available bandwidth; selecting a targeted advertisement from the plurality of requests for insertion into the advertisement opportunity based at least in part on the maximum bid (See [0069] which discloses priority of a delivery commitment based on higher price), bandwidth requirements (See [0045] which discloses booking a small amount of bandwidth; [0052] which discloses allowing the buyers to enter any necessary parameters; [0054] which discloses determining the technical capabilities to fulfill the request; and [0081] which discloses setting priorities for the use of available bandwidth such as allowing only narrowband commands that require few resources) and a correlation between the intended market characteristics and the subscriber characteristics (See [0068] which discloses fulfilling the request because the parameters of the avail profile substantially match the parameters of the Citibank delivery commitment), wherein a price for inserting the targeted advertisement is calculated based on the correlation (See [0054] which

discloses determining the price of the order based on various criteria such as historical data. Hence, because a buyer selects parameters and the requests are fulfilled based on a substantial match between the two, the price of the advertisement is therefore also subsequently calculated based on the correlation since it uses the historical data of the substantially matched users parameters to determine the price).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the teachings of Carles and Bryant to have incorporated the teachings of Hane for the benefit of better characterizing the advertisement opportunity as well as the buyers desired criteria/parameters for an avail in order to maximize profits and cost effectiveness by auctioning off advertisements opportunities to advertisers that meet the advertisers target criteria.

The combination of Carles, Bryant, and Hane does not explicitly teach of compressing, based at least in part on the avail bandwidth, the selected targeted advertisement such that the minimum bandwidth requirements are satisfied. However, in the same of endeavor, Safadi teaches of compressing, based at least in part on the avail bandwidth, the selected targeted advertisement such that the minimum bandwidth requirements are satisfied (See col. 5 lines 13-34 which discloses that the commercial may be compressed as to enable rate adaptation such that the commercial content fits the bandwidth allocated for the program to which the commercial belongs). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the teachings of Carles and Bryant to incorporate compressing, based at least in part on the avail bandwidth, the selected targeted advertisement such that the

minimum bandwidth requirements are satisfied as taught by Safadi for the mere benefit of ensuring that the commercial content is able to fit within the allocated bandwidth of the avail thereby preventing overloading.

Although, the combination of Carles, Bryant, Hane, and Safadi teaches of advertisers being able to set parameters for the advertisement such as bidding prices, time and targeted customers, the combination does not explicitly teach of wherein the plurality of requests associated with an advertisement includes minimum bandwidth requirements wherein the minimum bandwidth requirements identify a required amount of bandwidth available within the program stream for the advertisement to be inserted. However, in the same field of endeavor, Dedrick teaches of wherein the plurality of requests associated with an advertisement includes minimum bandwidth requirements wherein the minimum bandwidth requirements identify a required amount of bandwidth available within the program stream (See col.13 lines 13-47; col.17 lines 15-40; and col.18 lines 48-63 which discloses the advertiser being able to transmit information to the server detailing the advertisement desired to be inserted, the details/parameters including the targeted users, title and min/max bandwidth requirements as well as the amount the advertiser is willing to pay for the transport mechanism used. Hence, it is clear that Dedrick allows the advertisers to request a minimum amount of bandwidth for insertion of the advertisement).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the teachings of Carles, Bryant, Hane, and Safadi and their teachings

of setting parameters of an advertisement to incorporate wherein the plurality of requests associated with an advertisement includes the parameter of minimum bandwidth requirements wherein the minimum bandwidth requirements identify a required amount of bandwidth available within the program stream as taught by Dedrick as to better characterize an inserted advertisement to be inserted by the advertiser to a targeted customer.

Regarding claim 3, the combination teaches all of the claim limitations of the method of claim 1, the combination further teaches of wherein said selecting a targeted advertisement includes selecting an advertisement having minimum bandwidth requirements less than or equal to the avail bandwidth (See Bryant, col. 5 lines 4-9 and Fig. 3 which discloses bandwidths of the fill segments being less than the avail bandwidth).

Regarding claim 5, the combination teaches all of the claim limitations of the method of claim 1, the combination further teaches of wherein said determining subscriber characteristics includes receiving node characteristics that are an aggregate of the subscriber characteristics for subscribers associated with a node (See Carles, col. 3 lines 16-62 which discloses the conveyed information pertains to a group of households).

Regarding claim 6, the combination teaches all of the claim limitations of the

method of claim 1, the combination further teaches of wherein said determining subscriber characteristics includes receiving the subscriber characteristics from publicly available data (See Bryant, col. 4 lines 1-37; Carles, col. 4 lines 4-35, and col.5 lines 1-30)

Regarding claim 7, the combination teaches all of the claim limitations of the method of claim 6. The combination does not explicitly teach of wherein the publicly available data includes real estate records and tax assessment records. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the parameters utilized to include such data as a matter of preference, at least for the desirable benefit of more accurately describing the user.

Regarding claim 8, the combination teaches all of the claim limitations of the method of claim 1, wherein said determining subscriber characteristics includes receiving subscriber characteristics associated with a group of subscribers (See Carles col. 3 lines 16-62 where the information pertains to a group of households).

Regarding claim 10, the combination teaches all of the claim limitations of the system of claim 1, the combination further teaches of wherein the intended target market characteristics include demographics (See Carles, col. 5 lines 1-30 which refers to demographics).

Regarding claim 11, the combination teaches all of the claim limitations of the method of claim 10, the combination further teaches of wherein a probabilistic distribution is assigned to various demographic attributes (See Carles, col. 5 lines 1-45 which refers to weighting on a statistical analysis).

Regarding claim 12, the combination teaches all of the claim limitations of the method of claim 1, the combination further teaches of comprising inserting the compressed selected targeted advertisement associated with the winning advertiser into the avail (See Carles, Abstract and analysis of claim 1).

Regarding claim 13, the combination teaches all of the claim limitations of the method of claim 12, further comprising delivering the compressed selected targeted advertisement to at least some subset of the subscribers (See Carles, Abstract and col. 5).

Regarding claim 14, the combination teaches all of the claim limitations of the method of claim 13, the combination further teaches of wherein the subset includes individual subscribers (See Carles, Abstract and col. 5).

Regarding claim 15, the combination teaches all of the claim limitations of the method of claim 13, the combination further teaches of wherein the subset includes a group of subscribers (See Carles, Abstract and col. 5).

Regarding claim 16, the combination teaches all of the claim limitations of the method of claim 15, the combination further teaches of wherein the groups of subscribers are generated based on connectivity (See Carles, Abstract and col. 5).



Regarding claim 17, the combination teaches all of the claim limitations of the method of claim 13, the combination further teaches of wherein the subscribers include at least some subset of individuals, households, and groups (See Carles, Abstract and col. 5)

Regarding claim 18, the combination teaches all of the claim limitations of the method of claim 1, the combination further teaches of a multiplexed stream (See Bryant, Fig. 6 and col. 6 lines 55- col. 7 lines 17 which discloses multiple programs in the video stream; also refer to the analysis of claim 1)

Regarding claim 22, the claim has been analyzed and rejected for the same reasons set forth in the rejection of claims 1-3. Furthermore, Hane discloses of determining that the target market characteristics have a sufficient level of comparison to the subscriber characteristics (See [0068] which discloses that the Citibank ad will be delivered since the profile of the avail substantially matches the Citibank parameters).

Regarding claim 23, the combination teaches all of the claim limitations of the method of claim 22, the combination does not explicitly teach of comprising halting the insertion of the compressed targeted advertisement when the minimum acceptable bit rate is greater than the advertisement insertion opportunity bit rate. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included an error detection step as to being able to prevent a possible insertion

overload by sending a fill segment requiring greater bandwidth than what the avail can handle or process.

Regarding claim 25, the claim has been analyzed and rejected for the same reasons set forth in the rejection of claim 1.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Hamilton, US 2009/0067510 ([0023], [0057]-[0058]) teaches of wherein an ad is recompressed to fit minimum and maximum bandwidths.

***Conclusion***

**5. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricky Chin whose telephone number is 571-270-3753. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on 571-272-7296. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ricky Chin/  
Patent Examiner  
AU 2423  
(571) 270-3753  
Ricky.Chin@uspto.gov

/Andrew Y Koenig/  
Supervisory Patent Examiner, Art Unit 2423